From glowbugs@theporch.com Thu Dec 5 10:41:28 1996
Return-Path: <glowbugs@theporch.com>
Received: from uro (localhost.theporch.com [127.0.0.1])
          by uro.theporch.com (8.8.4/AUX-3.1.1)
          with SMTP id KAA04533;
          Thu, 5 Dec 1996 10:33:16 -0600 (CST)
Date: Thu, 5 Dec 1996 10:33:16 -0600 (CST)
Message-Id: <199612051633.KAA04533@uro.theporch.com>
Errors-To: ws4s@infoave.net
Reply-To: glowbugs@theporch.com
Originator: glowbugs@theporch.com
Sender: glowbugs@theporch.com
Precedence: bulk
From: glowbugs@theporch.com
To: Multiple recipients of list <glowbugs@theporch.com>
Subject: GLOWBUGS digest 373
X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas
X-Comment: Please send list server requests to listproc@theporch.com
Status: O

GLOWBUGS Digest 373

Topics covered in this issue include:

Date: Wed, 4 Dec 96 11:29:26 PST
From: gpewitt@execpc.com
To: Multiple recipients of list <glowbugs@theporch.com>, ws4s@InfoAve.Net

Subject: RE: logo?
Message-ID: <Chameleon.961204113052.gpewitt@execpc.com.execpc.com>

How about a firefly with some lightning bolts?

snip
>Anyone with any ideas?
>73 de Conard ws4s

Name: Gary Pewitt N9ZSV/KT
      6120 W. Calumet Rd. Apt 204
      Milwaukee, WI 53223
      414 355 8147 Home 414 297 4307 Work
E-mail: gpewitt@execpc.com
Date: 12/04/96
Time: 11:29:26

This message was sent by Chameleon

Date: Wed, 4 Dec 1996 13:25:40 -0500 (EST)
From: rdkeys@csemail.cropsci.ncsu.edu
To: ws4s@InfoAve.Net
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com
Subject: Re: logo?
Message-ID: <9612041825.AA106714@csemail.cropsci.ncsu.edu>

>
> With all the talk on BA for a logo, I thought maybe we needed one too.
> Anyone with any ideas?
> 73 de Conard ws4s
>

Yeah..... A small breadboard with a coil and a cap (looking like a little
TNT rig) with a BIG '01A sitting in the middle with the usual lightning
bolts emanating therefrom. The capacitor should have a proper 0-100
dial of the old bakelite style. That is sort of the Archtypal Glowbugge.....

One could make a visible tap on the coil so it could be an offical
R.V.L. Hartley circuit, for some hidden mystery to pass on to our
grandkids.

One could make a visible '01A mark on the tube, with a GB above it
as part of the tube ID mark.

One could make the tube a globular style VT-2, with the glass nipple
on top.

One could make a very small cartoon face with the cowlick and and
big eyes and long nose just peeking up from behind the breadboard,
as was done in some of the early radio and comic strips cartoons.

One could put an arched ``Glowbugs Forever'' over the top of the tube.

Someone make it up on a full page size and scan it in as a tiff, eps,
and gif image and then we can get it reduced to a small size to fit
on a nametag (about half of a nametag with the call and ops name on
the other side). The full size image could be used for tshirts.
A 1/4 size image could be used for caps. A 1/8 size image for nametags.

Are we for real? ......hmmmmm......(:+}}.....

Bob/NA4G

Date: Wed, 4 Dec 1996 10:07:43 -0800 (PST)
From: tomrice@netcom.com (Tom R. Rice)
To: glowbugs@theporch.com (glowbugs)
Subject: Re: Not T9... checking xtal current
Message-ID: <199612041807.KAA27551@netcom7.netcom.com>

>
> Adding a photocell, appropriate resistor and a meter you can make an rf
> calibrate the meter indication as the photocell reads the lamp brightness.
> Make sure you put the thing in a light tight box. I seem to remember
> seeing an article on an rf wattmeter that used this same construction
> technique.

    We used to use our photographic light meters for this
    purpose. Look in a pawn shop or other place that has
    used camera stuff and, with a little work, you got a
    neat meter. Weston Master I or II or an old GE work
    fine.

--
"Start off every day with a smile and get it over with." --W.C.Fields
Tom R. Rice
tomrice@netcom.com

CIS: 71160,1122

Date: Wed, 4 Dec 1996 11:30:41 -0700
From: jeffd@coriolis.com (Jeff Duntemann)
To: glowbugs@theporch.com
Subject: Homebrewed slug-tuned inductors
Message-ID: <1.5.4.32.19961204112458.0096a7b8@ntserver.coriolis.com>

Hi gang--

I've had to do some travelling and haven't been out in the garage much--and not much progress has been made on my 6U8A superhet as a result. Last night, however, I finally got out there and did a little engineering which merits reporting here.

The original circuit (from the April, 1966 QST) has a tuned triode RF amp up front. A 2-section 365pf variable tunes the input and output circuit of the triode, and identical inductors wound on pill bottles resonate with the two sections of the variable.

Now, I've had enough trouble with tracking in tuned circuits like this not to trust solenoid coils without any means of tuning. No matter how carefully you wind them, they're never going to be *precisely* the same inductance, and the gain or selectivity of the RF stage will suffer. This is to be primarily a CW receiver, so I want those skirts just *so*--and in my mind that calls for slug-tuned inductors.

(As a related aside here, I'm actually using a 3-section variable from AES, and have a "spare" triode section in that first 6U8. This suggests that I could build a 2-stage RF amp without adding any additional bulk apart from a third coil--but I seriously doubt I could make the three tuned circuits track well enough to make the effort worthwhile.)

I have a coffee can full of greasy slug-tuned coils and a couple of naked forms, but these are unobtanium now and I want other people to be able to duplicate this design once I perfect it. So I started digging through my Big Box 'o Plasticrappola looking for inspiration.

After half an hour, here's what I found: There's a very common size of thermal FAX paper roll wound on a thin plastic core. The outside diameter of the core is exactly 3/4". The inside diameter is 7/16", and the inner and outer tubes are separated by short "vanes" to make a solid plastic core unnecessary. (These cores replaced an older type made of thick cardboard, of which I have a few too.) The vanes make nice "passageways" through the core for wire leads, too.

I also found that the thinnest common type of 1/2" PVC pipe has a 3/4" ID and fits snugly over the outside of that FAX paper core. Better still, the outside diameter of the PVC pipe fits (as you might expect) into a standard 1/2" PVC pipe cap. A 1/2" length of the PVC pipe thus serves as a bushing to make the FAX paper core fit snugly into a 1/2" PVC pipe cap.

Now, do your best to envision this: I drilled and tapped a 6-32 machine screw thread into the center of the PVC pipe cap. I dug out a nylon spacer tapped 6-32 straight through. (Digi-Key and other places sell these and I use them a lot.) Using a 6-32 nylon binder-head screw, I attached two T37-2 iron powder toroid cores to one end of the nylon spacer. I dug out a 2" brass 6-32 machine screw, threaded it through the tapped hole in the center of the PVC pipe cap, and then threaded it into the opposite end of the nylon spacer until it met the end of the nylon binder-head screw. No need for a lock nut or loktite.

If you can picture this now, we have a 3/8" diameter iron powder slug parked neatly and without undue stress on the end of a brass machine screw threaded through a hole in the middle of a PVC pipe cap. I set this aside and calculated my first coil. After a little fussing I found that 16 turns of #26 enamel, close-wound, resonated the 365pf cap where I wanted it when wound on the end of the FAX paper core. I cut off 1 3/4" of the core containing the winding, smoothed out the cut end, and inserted it into the PVC pipe cap, which already had the bushing inside it. Snug fit, no need for glue.

Voila! A slightly bulky but very cheap homebrew slug-tuned inductor, made with no unobtainium. A second 1/2" PVC pipe cap (I use the kind with flat rather than rounded ends) over the other end of the core makes it easy to bolt the whole thing to the top of my chassis. I still need to add the antenna input winding (and then create the output coil) before I can test the RF amp, but I don't think the mechanical design of the coil will cause any problems.

The only tricky part at all is finding one of these FAX paper cores. Hunt around for FAX machines in your office, and see if they use the type of paper wound on this sort of core. (The dimensions of the core seem to be some sort of standard, halleluia!) Then ask people to save the empty cores for you. The way we use FAX machines these days, you'll soon have a drawer full of the cores, which are a very nice size for HF glowbug work, for transmitters or receivers. (I'm going to wind the tank coil for my eventual "nice" 6L6 rig on FAX paper core stock. No need for slug tuning but vertical mounting to a chassis is easy courtesy the pipe cap.) The iron powder cores, PVC pipe, and nylon items are all standard mail order or Home Depot stuff.

I'll post photos of the coil and the evolving receiver, especially if I get a digital camera for Christmas, as I've been hinting for some time...

--73--

--Jeff Duntemann KG7JF
  Scottsdale, Arizona

Date: Wed, 04 Dec 1996 14:39:45 EST
From: sigcom@juno.com (Stephen M Smith)
To: glowbugs@theporch.com
Subject: 7AC base tubes, observations.
Message-ID: <19961204.080821.8287.2.sigcom@juno.com>

Group,

I got to test the tubes I found yesterday and they all work OK in The Scrounger. Thought I'd share the interesting results:

The 6L6s and 5881s all put out the same amount of power, 5 Watts. The 6V6 puts out 4.5 Watts and the 6Y6 5.5 Watts. I thought that the 6L6 and 5881 would be the most powerful, followed by the 6Y6 and then the 6V6.

(I know, I know.....when am I going to put it on the air.)

I also got a couple of 6AR6s which are beam pentodes and look physically like the 6L6 etc., but are 6BQ base tubes. Anyone tried these in a power oscillator?

73.......Steve, WB6TNL

Date: Wed, 4 Dec 1996 20:39:40 -0500 (EST)
From: "Barry L. Ornitz" <u856010@eastman.com>
To: Boatanchors Mailing List <boatanchors@theporch.com>,
Subject: Drilling round holes in thin sheet metal.
Message-ID: <Pine.ULT.3.91.961204201936.16420C-100000@dua150.kpt.emn.com>

There has been an interesting thread going on Boatanchors on drilling and punching chassis. One tool that I have not seen described is the rotobroach. This is a precision version of a hole saw for small holes. It is the best thing next to a punch with thin sheet metal and it works wonders on drilling the roof of an automobile for an antenna mount. Like conventional twist drills, better results are obtained in a drill press but a hand drill will work too. There is a stepped drill for sheet metal

too, but I cannot remember the name (Unibit?). I never used it again after my lab bought a set of Bosch rotobroaches. They were expensive, over $50 for a set of 5 or 6 that covered 3/8 to about an inch. Perhaps Manhattan Supply that Richard Hager suggested has lower cost versions.

I agree fully with Richard that cheap drill bits are no bargain (and some of those moderately expensive "point" drills popularly advertized today are no bargain either). I have not bit the bullet yet and bought a full index of cobalt HSS bits, but I do have these in the more popular sizes including the numbered sizes needed for drilling the holes to be tapped with 4-40, 6-32, 8-32, and 10-32 machine screws.

There is another tool called a "fly cutter" that can be used in a drill press. I consider these an _extreme_ hazard and would NEVER suggest one be used. With any drilling or cutting of metal, please remember to wear safety glasses as those fine metal chips can ruin an eyeball rather quickly.

73, Barry L. Ornitz WA4VZQ ornitz@eastman.com

Date: Wed, 4 Dec 1996 21:32:02 -0500
From: LNaumann@aol.com
To: glowbugs@theporch.com
Subject: hamcalc
Message-ID: <961204213201_1119102544@emout07.mail.aol.com>

Hello everyone, just thought I'd let you all know about a freeware program that I've been using to help design RF circuits. It's called Hamcalc and it's written by George Murphy VE3ERP. You may all know about it already but I'm new to the group and havent seen anything about it in the list. It's basically a compilation of a whole bunch of small programs to calculate all kinds of useful info for the Ham radio builder. you can find it through the ARRL web site or the Oakland repository.
I'm also busy on my 6T9 project, It's not going to look like the picture but I'm using the parts I have and what I can find. It's more fun to improvise and revamp anyway.
73' s
Larry Naumann AA0DM
St. Louis, MO

Date: 05 Dec 1996 10:05:10 CST
From: "KASTIGAR, MATTHEW (M" <MK2331@STLMAIL7.SBC.COM>
To: INTERNET@SWGATE1.SBC.COM
Subject: St. Louis QRP Society

Message-ID: <STLMAIL7.MK2331.745805100096340FSTLMAIL7@SBC.COM>

Microsoft Mail v3.0 IPM.Microsoft Mail.Note
From: KASTIGAR, MATTHEW (MM)
To: 'internet@swgate1'
Subject: St. Louis QRP Society
Date: 1996-12-05 10:09
Priority:
Message ID: A13BA5D4
Conversation ID: A13BA5D4

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internet: glowbugs@theporch.com

All:
     If you live in St. Louis, the St. Louis QRP Society meets the third Wednesday of each month at the Florissant Valley Community College, Engineering Building, 2nd floor, Radio Room at 7:PM. We have Hollow-State, Solid-State, and Bi-State rigs, qrp'ers and equipment builders of all sizes and shapes. Everyone is welcome! The only pre-requisit is to enjoy ham radio and building.
     For more information, contact Matt N0XEU at MK2331@STLMAIL7.SBC.COM

Date: Thu, 5 Dec 1996 16:26:24 +0000
From: Bob <KE4QOK@worldnet.att.net>
To: glowbugs@theporch.com
Subject: Re: WX3MAS Classic Cw Station Dec 15 and Cw problem
Message-ID: <19961205162622.AAA21791@LOCALNAME>

I saw this on the BA reflector and thought there might be some folks here who had not seen it and that it might be interesting to some. It looks like a good chance to make a good showing of ourselves.

At 01:04 PM 12/5/96 +0000, you wrote:
>CW BAers,
>
>There will be a classic CW station set up during the WX3MAS operation. But
>outside thsi CW station WX3MAS is forbidden to use CW. Read the message and
>take appropriate action!
>
>>From another reflector.....
>
>Gang I am going to use a little of your bandwidth with a desperate plea for
>help. My local Ham Radio Club the Delaware Lehigh ARC is holding it's annual

>special event for Christmas time on the weekend of Dec 14 - 15 using the
>call sign WX3MAS.
>
>Well this ARRL affiliated club whose president is a No Code tech has
>FORBIDDEN the use of CW for this officially sanctioned event.
>
>You read that correctly those were there EXACT words CW was to be FORBIDDEN.
>I guess the influx of the codeless crowd has gone that far, the local voice
>of the
>ARRL would speak those words. Mind you they gave me some drivel that CW was
>not a popular mode and few people would make contact with them in that mode
>and that the Techs would not be able to enjoy the station.
>
>I have managed to convice one of the old timers to let me and a friend set
>up a classic home brew CW station seperate from the main station. It will
>be on from 00:00 z to
>02:00z on Sun Dec 15. (Thats 7 to 9 pm eastern time Sat) And this is where
>you come in.
>
>I need all of my brother and sister CW amateurs to listen for us on 7.047 +
>or - durring that time I NEED your pile up! The signal will be weak only
>about 35 watts or so.
>Lets show these fellows that we who struggled so hard to learn this mode
>will never allow it to be FORBIDDEN for any reason. Lets let them know that
>what happened to
>the MARS frequencys will not happen on the amateur frequencys.
>
>Please don't let this turn into a huge battle over code / No code
>requirments now it seems we are fighting for our very survival.
>
>Please help.
>
>If you hear WX3MAS on SSB ask for a CW qso
>And please work this station on 7.047 12/15/96 00:00 to 02:00z
>
>God bless you and happy holidays.
>
>George
>***
>*George Cook.....AA3JU....
>
>Gang, This is a local decision not one from ARRL HQ.   Call on CW, SSB, and
>AM!!!!!!
>
>Dave K4JRB
>
>
****

****
73 es TNX
KE4QOK
Bob
136 Hermitage Rd.
Newport News, Va. 23606
(757)930-0348

Real radios glow in the dark.
Power is no substitute for skill.
If it stayed up last winter, it was too small.

KE4QOK@worldnet.att.net [try here first]
bob.roach@sourcebbs.com

****
****

End of GLOWBUGS Digest 373
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